



Linda S. Adams  
Secretary for  
Environmental Protection

# California Regional Water Quality Control Board

## San Diego Region

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October 2, 2008

In reply refer to:  
**CGWU: 213270 : Lberlad**

Mr. Steven A. Plyler  
Superintendent of Water Operations  
City of Carlsbad Public Works  
5950 El Camino Real  
Carlsbad, CA 92008

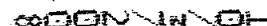
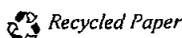
Dear Mr. Plyler:

**SUBJECT: VIOLATIONS OF RECYCLED WATER EFFLUENT LIMITS  
IN ORDER NO. R9-2001-352 FOR THE CARLSBAD WATER  
RECYCLING FACILITY (CWRF)**

The California Regional Water Quality Control Board, San Diego Region (Regional Board) has reviewed the following technical reports submitted by the Carlsbad Municipal Water District in accordance with Monitoring and Reporting Program No. R9-2001-352.

REPORT	PERIOD	REPORT DATE	DATE RECEIVED
Monthly	January 2008	February 27, 2008	February 29, 2008
Monthly	February 2008	March 26, 2008	April 1, 2008
Monthly & First Quarter	March & Jan-March 08	April 22, 2008	April 24, 2008
Monthly	April 2008	May 29, 2008	May 30, 2008
Monthly	May 2008	June 26, 2008	June 28, 2008
Monthly & Second Quarter	June & March-June 08	July 15, 2008	July 17, 2008
Monthly	July 2008	August 25, 2008	August 28, 2008
"Manganese Compliance Study"	2006-2007	September 26, 2007	July 25, 2008

*California Environmental Protection Agency*



**The following violations of the effluent limitations prescribed in Order No. R9-2001-352, Discharge Specification B.5 are identified in these monitoring reports:**

1. **The maximum 12-month moving average manganese limit of 0.05 mg/L was exceeded** in January 2008, February 2008, March 2008, April 2008, May 2008, and July 2008. Data from the 12-month average manganese concentrations in effluent for this six month period, ranged from .068 mg/L to .072 mg/L.
2. **The maximum daily limit of 0.06 mg/L for manganese was exceeded** 9 out of 15 times (60 percent of the time) in the First Quarter 2008 report. The maximum exceedance value of 0.37 mg/L for manganese, was recorded on 2/28/08.
3. **The maximum daily limit of 0.06 mg/L for manganese was exceeded** 14 out of 17 times (82 percent of the time) in the Second Quarter 2008 report. The maximum exceedance value recorded for this time period was 0.09 mg/L, on 3/11/08 and 6/24/08.
4. **Gaps in turbidity data collection were reported** on both April 6, 2008 and May 15, 2008.
5. **Incomplete NTU data reporting occurred** on the following days in June 2008: 7th, 11th, 23rd, 24th, and 29th. Missing data were attributed to the plant going off-line during those periods.
6. **A malfunction in the continuous turbidity meter was reported** on July 29, 2008. Erroneous readings were recorded from 13:44 to 15:44 on that day.

**The Carlsbad Water Recycling Facility (CWRf) has taken the following measures to prevent further violations of Discharge Specification B5:**

1. **TURBIDITY DATA COLLECTION.** The April and May 2008 gaps in data collection were attributed to lockup of the SCADA computer server. CWRf indicated that hardware and software will be updated by 2009.
2. **TURBIDITY METER MALFUNCTIONS.** To address this issue, the July 2008 report stated that the turbidity meter sensor was replaced and a secondary sensor was installed as a backup.

3. **INCOMPLETE NTU DATA REPORTING.** No information was provided indicating why the plant was off-line for five days in July 2008. However, future NTU data gaps may be prevented through upgrades in system hardware and software.
4. **MANGANESE EXCEEDANCES.** The CWRP has had, and continues to have, effluent limitation violations for manganese. Efforts have been made by CWRP to address the possible source(s) for manganese exceedances but more needs to be done.

In a meeting between CWRP and staff at the Regional Board on July 21, 2008, CWRP representatives voiced concern that the source of the problem had not yet been identified despite a study commissioned in 2007 to look into the issue. After the meeting, Mr. Steven Plyler, Superintendent of Water Operations for the facility, forwarded a report entitled, "Manganese Compliance Study," conducted by the Encina Wastewater Authority that describes those efforts.

**The Regional Board has reviewed this study, and has the following comments.**

- The attached data set was incomplete. Please provide a full set of data for Encina secondary effluent and influent manganese levels from February 2, 2006 to September 24, 2006, to compare with the CWRP effluent data for that same time period.
- For the table called "Revenue Site Manganese Levels," provide a clearer description of the flow sources cited and data that would allow accurate monthly and 12-month average manganese levels to be calculated for basis of comparison.
- More information is needed to define the feasibility of removing manganese by using "green sand" (glaucanite) filters, as described in the report. A pilot study to determine the effectiveness of this approach is appropriate.

Pursuant to the California Water Code, any violation of waste discharge requirements is subject to potential enforcement action(s) by the Regional Board including a time schedule order, cease and desist order, cleanup and abatement order, imposition of an administrative civil liability, referral to the district attorney for criminal prosecution, or referral to the attorney general. Administrative civil liability amounts that may be imposed by the Regional Board under authority of

